

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An electronic pulse generation device comprising:
an emitter element made of a dielectric material;
first and second electrodes formed in direct contact with said emitter element;
and
means for applying an alternating pulse between said first electrode and said second electrode to reverse or change polarization of said emitter element,
wherein electrons are emitted intermittently from said emitter element.
2. (Currently Amended) An electronic pulse generation device according to claim 1, further comprising:
a third electrode facing said emitter element;
means for applying positive direct bias voltage to said third electrode; and
~~wherein~~ a vacuum space is present between said emitter element and said third electrode, and
wherein electrons are emitted intermittently from said emitter element toward said third electrode.
3. (Currently Amended) An electronic pulse generation device according to claim 1, wherein said emitter element ~~is made of~~ comprises at least one of a piezoelectric material, an anti-ferroelectric material, ~~or~~ and an electrostrictive material.
4. (Currently Amended) An electronic pulse generation device ~~according to claim 1,~~ comprising:

an emitter element made of a dielectric material;
first and second electrodes formed in contact with said emitter element;
means for applying an alternating pulse between said first electrode and said
second electrode to reverse or change polarization of said emitter element;
wherein said means for applying alternating pulse applies a first voltage
between said first electrode and said second electrode for causing said first electrode
to have a potential higher than a potential of said second electrode in a first period to
perform said polarization of said emitter element in one direction, and
wherein said means for applying alternating pulse applies a second voltage
between said first electrode and said second electrode for causing said first electrode
to have a potential lower than a potential of said second electrode in a second period to
perform said polarization reversal or polarization change of said emitter element for
emitting electrons; and
wherein electrons are emitted intermittently from said emitter element.

5. (Currently Amended) An electronic pulse generation device according to
claim 1, comprising:
an emitter element made of a dielectric material;
first and second electrodes wherein said first electrode and said second
electrode are disposed in contact with a principal surface of said emitter element, with
a slit defined between said first electrode and said second electrode, said emitter
element being partly exposed through said slit; and
means for applying an alternating pulse between said first electrode and said
second electrode to reverse or change polarization of said emitter element,
wherein electrons are emitted intermittently from said emitter element.

Claims 6 and 7. (Cancelled)

8. (Original) An electronic pulse generation device according to claim 1, wherein said first electrode is formed on a first surface of said emitter element, and said second electrode is formed on a second surface of said emitter element.
9. (Currently Amended) An electronic pulse generation device ~~according to claim 8, comprising:~~
an emitter element made of a dielectric material;
a first electrode formed on a first surface of said emitter element;
a second electrode formed on a second surface of said emitter element; and
means for applying an alternating pulse between said first electrode and said second electrode to reverse or change polarization of said emitter element,
wherein polarization reversal or polarization change occurs in an electric field E applied to said emitter element represented by $E = V_{ak}/h$, where h is a thickness of said emitter element between said first electrode and said second electrode, and V_{ak} is a voltage between said first electrode and said second electrode, and
wherein electrons are emitted intermittently from said emitter element.
10. (Cancelled)
11. (Original) An electronic pulse generation device according to claim 1, wherein said alternating pulse is applied between said first electrode and said second electrode for causing said first electrode to have a potential lower than a potential of said second electrode to reverse or change polarization of at least a portion of said emitter element; and
the polarization reversal or polarization change induces emission of electrons in the vicinity of said first electrode.

12. (Original) An electronic pulse generation device according to claim 1, wherein said alternating pulse is applied between said first electrode and said second electrode to reverse or change polarization of at least a portion of said emitter element; the polarization reversal or polarization change causes positive poles of dipole moments in the vicinity of said first electrode to be oriented toward said first electrode, inducing emission of primary electrons from said first electrode; and said emitted primary electrons impinge upon said emitter element to induce emission of secondary electrons from said emitter element.

13. (Currently Amended) An electronic pulse generation device according to ~~claim 12, comprising:~~
an emitter element made of a dielectric material;
first and second electrodes formed in contact with said emitter element; and
means for applying an alternating pulse between said first electrode and said second electrode to reverse or change polarization of at least a portion of said emitter element.
wherein said first electrode, said emitter element, and a vacuum atmosphere define a triple point; and
wherein the polarization reversal or polarization change causes positive poles of dipole moments in the vicinity of said first electrode to be oriented toward said first electrode, thereby inducing emission of primary electrons are emitted from a portion of said first electrode in the vicinity of said triple point, and
wherein said emitted primary electrons impinge upon said emitter element to induce emission of secondary electrons from said emitter element.